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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ILYA KLEBANOV

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EXAMINER

MONTOYA, OSCHTA I

ART UNIT

PAPER NUMBER

2421

MAIL DATE

DELIVERY MODE

11/05/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/398,913	KLEBANOV ET AL.	
	Examiner	Art Unit	
	Oshta Montoya	2421	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-16, 18-20, and 22-26 is/are allowed.
- 6) ☒ Claim(s) 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Levesque et al., US 2003/0170003 in view of Malladi et al., US 5,912,676 and further in view of Fujii et al., US 5,898,695 in view of Perego, US 5,835,083.

Regarding claim 21, note the Levesque reference which discloses a method of storing video data. Levesque discloses multiple modes of operation, such as receiving a compressed signal (MPEG transport signal 102 figure 7 paragraph 44), or receiving an uncompressed signal (104 figure 7).

The claimed first mode of operation comprising storing pixel information in a frame buffer of a video adapter, wherein one line of frame buffer memory is representative of one line of a video image to be displayed is met in part by receiving an uncompressed signal, as described above, where the video signal may be buffered in frame buffer 80 or 88 figure 5 or memory 106 figure 7 (paragraph 35-36 and 44).

Although, Levesque does not explicitly disclose that one line of the frame buffer memory is representative of a line of video image to be displayed, it is well known in the art of uncompressed video frame buffers that a line of frame buffer memory may be *representative* of a line of a video image to be displayed. The Malladi et al reference teaches that various frame storage formats exist for storing frame data in memory, and that one method for storing a frame of pixel data is on a scan line basis, where the data is stored in memory scan line by scan line for pictures or frames that are to be displayed (see col. 4, lines 30-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the method of the Levesque reference which , discloses multiple modes of operation and storing video data, with the Malladi et al reference, which specifically teaches that one line of frame buffer memory may be representative of one line of a video image to be displayed for the advantage of providing a storage format which provides improved or optimum performance for storing a reference frame of pixel data on a scan line basis.

The claimed second mode of operation comprising storing compressed transport stream data in the frame buffer, wherein one line of frame buffer memory is representative of one transport stream packet is met in part by the Levesque reference, which also discloses receiving an MPEG transport stream from a digital video source Fig 7, as described above,

Although, the Levesque reference does not explicitly disclose that one line of the frame buffer memory is representative of one transport stream packet, it is well known in the art of video transport streams that are stored in frame buffers that a MPEG

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transport stream packet has a fixed 188 byte length as defined by MPEG standards, and therefore, a line of frame buffer memory is *representative* of a transport stream packet since every MPEG transport stream packet has already been produced and transmitted according to the established MPEG standards so that when received by a frame buffer memory a line of memory is representative of one transport stream packet. In addition to, the Fujii reference teaches **that one line of buffer memory is representative of one transport stream packet (figure 4, col. 6, lines 14-18).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further combined the method of Levesque which discloses multiple modes of operation and storing video data, with the Fujii reference, which specifically teaches that **that one line of buffer memory is representative of one transport stream packet** for the advantage of providing a storage format which allows for reduced number of components and lower the cost of components.

Levesque, Malladi, and Fujii are silent about storing information in a frame buffer indicating which of the stored compressed transport stream data in the frame buffer is valid.

In an analogous art, Perego discloses storing information in a frame buffer indicating which of the stored compressed transport stream data in the frame buffer is valid (figure 1 and 2, col. 3, line 29 to col. 4, line 11).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Levesque, Malladi, and Fujii's method with the teachings of Perego. The motivation

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would have been to let the other components know that the data stored is ready to be utilized.

Allowable Subject Matter

4. Claims 2-13 and 22-23 are allowed.

The following is an examiner's statement of reasons for allowance:

As to independent claim 22, the prior art, alone or in combination, does not teach or fairly suggest a video graphics system comprising all of the claimed subject matter in its entirety including a data storage controller having at least one pair of a plurality of internal control ports to communicate control signals within the data storage controller.

5. Claims 14-16 and 24 are allowed.

As to independent claim 14, the prior art, alone or in combination, does not teach or fairly suggest a method to receive video graphics data comprising all of the claimed subject matter in its entirety including storing at least a portion of the compressed transport stream data signals via a first bus in a memory buffer controlled by the secondary set of memory control signals wherein the memory buffer comprises a frame buffer that stores uncompressed data in a different mode of operation and sending at least the portion of the compressed transport stream data stored in the memory buffer via the first bus to a system bus.

6. Claim 18-20 are allowed.

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As to independent claim 18, the prior art, alone or in combination, does not teach or fairly suggest a method to receive video graphics data comprising all of the claimed subject matter in its entirety including the video graphics adapter is operative to store at least a portion of compressed transport stream data signals to be at first in frame buffer memory controlled by a secondary set of memory control signals derived from the compressed transport stream control signals and storing uncompressed data in the frame buffer in a different mode of operation.

7. Claim 25 is allowed.

As to independent claim 25, the prior art, alone or in combination, does not teach or fairly suggest a method to receive video graphics data comprising all of the claimed subject matter in its entirety including a deactive control signal that is asserted to indicate invalid bytes are present in the compressed transport stream.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oschta Montoya whose telephone number is (571)270-1192. The examiner can normally be reached on Monday/Friday 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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OM

**/Hunter B. Lonsberry/
Primary Examiner, Art Unit 2421**